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CABINET STRUCTURE

BACKGROUND OF THE INVENTION

This invention relates to cabinet structure, and especially to integrally molded cabinet structure for small radio receivers or like apparatus.

Portable electrical apparatus, for example travel clock-radios of relatively small size, have attained a considerable degree of popularity. Such clock-radios usually are housed within boxlike enclosures having hinged lid structures, and latches therefor, as well as some means for hinged mounting the clock-radios so that they can be moved to a propped position within the opened enclosures for clock-viewing and radio-listening. Also, removable battery compartment and service closures are provided that include releasable fasteners. Apparatus of this type is rather complicated and costly since it requires separate cabinet parts and separately handleable hinging and latching hardware.

It is a general objective of this invention to provide improved portable cabinet structure of molded plastic material for housing electronic equipment.

It is a further and more specific objective of this invention to provide improved, unitary clock-radio support and enclosure structure, along with hinging and latching means therefor, that lends itself to fabrication from molded plastic material.

It is still another objective of the invention to provide a portable radio including a cabinet of integrally molded plastic construction facilitating both assembly and use of the radio.

SUMMARY OF THE INVENTION

The present invention contemplates unitary cabinet, hinging, and latching means of integrally molded plastic construction, that lends itself to formation by simple molding techniques. The composite structure, as molded, comprises: a pair of adjacent, open-sided, unidirectionally presented casing members of plastic material interconnected by a hinging strip; a third casing member connected to one of the members of said pair by a similar hinging strip; and a wall member connected to said third casing member by an integral hinging strip. The construction and arrangement is such that the third casing member receives apparatus, for example a radio chassis and clock assembly, that is thereupon covered by folding and fastening the hinged wall member thereover. The third casing member, thus assembled, is foldable into stored position into one casing member of the adjacent pair, for subsequent enclosure by folding thereover the other casing member of the pair. Alternatively, the pair of adjacent casing members may be partially opened about their common, integrally molded hinging strip, and the third casing member pivoted about its hinged edge into a propped position within the adjacent pair of members for clock-viewing and radio-listening.

The foregoing as well as other objectives of the invention will be more fully understood from a consideration of the following description taken in light of the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective showing of molded-plastic cabinet structure embodying the present invention, and in its form as molded;

FIG. 2 is a showing similar to FIG. 1, and following assembly of clock-radio apparatus into the molded cabinet;

FIGS. 3, 4, and 5 are views illustrating operational features of apparatus assembled according to the preceding FIGS. and FIGS. 1A to 5A are somewhat diagrammatic elevational end views, on a reduced scale, of apparatus seen in FIGS. 1 to 5, respectively.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With more particular reference to FIGS. 1 and 1A of the drawing, cabinet structure 10 is integrally molded in four basic sections comprising casing members 11 and 12, preferably of

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box-shaped configuration, joined by an integral hinging strip 13 of reduced cross-sectional area. A third casing or box-shaped member 14 is joined by a similar hinging strip 15 to an adjacently disposed edge of member 12, and a panel 16 is joined along an edge thereof by integral hinging strip 17 to an adjacent edge of member 14. A door 18 is molded onto panel 16 with a hinging strip 19 along the edge of an opening 20 formed in the panel. Conveniently, the cabinet structure may be molded from a synthetic organic thermoplastic material such as polypropylene which has been found to exhibit sufficient flexibility for the hinging sections and rigidity for the box-shaped sections.

With reference further to FIG. 1A, and to FIGS. 2 and 2A, a combination clock and radio chassis 21 of generally rectangular construction is inserted and mounted within box-shaped member 14, with knobs 22 and clock 23 (visible in FIGS. 3 and 4) presented downwardly. Panel 16 is then folded about its hinging strip 17 onto the rear of the member 14 and is fastened in such position, for example by a captive screw or the like, (not shown). The rim of member 14 opposite panel 16 defines a generally rectangular opening for receiving a front wall of the clock-radio chassis. The same rim includes a flange or bead 24 (FIGS. 1, 3 and 4) against which the face of the chassis is seated. Thus, panel 16 and flange 24 cooperate to hold the clock-radio chassis in place within member 14. Opening 20 in combination with door 18 provides for access to the radio and clock battery compartment (not shown).

The apparatus thus assembled is then foldable into the operational configuration shown in FIGS. 3 and 3A. That is, member 14 and its associated clock-radio are foldable into member 12. From this position members 12 and 14 may be folded to the further operational position shown in FIGS. 4 and 4A, or into the stored position shown in FIGS. 5 and 5A, in which member 14 is enclosed by members 11 and 12.

To aid in maintaining the folded stored position shown in FIGS. 5 and 5A, selectively releasable friction latching structure is provided that includes a projecting, integrally molded flange 25 (FIG. 5) positioned resiliently and frictionally to engage a bead 26 provided, also by molding, on member 12 (FIG. 4).

From the foregoing description it will be appreciated that the invention provides a portable clock-radio cabinet of integrally molded plastic construction facilitating both assembly of the clock-radio into the cabinet, and subsequent use of the clock-radio.

While generally rectangular box-shaped cabinet structure has been disclosed as the preferred embodiment of the invention, it will be understood that the cabinet structure may take other forms such as round, oval, square, or the like. Also, instrumentalities housed therein may comprise radios only, clocks only, or the like. These and other modifications are contemplated by the scope of the claims.

I claim:

1. A molded cabinet of flexible plastic material having relatively high resistance to fatigue failure under repeated flexing, said cabinet, as molded, comprising: a pair of adjacent, open-sided, unidirectionally presented casing members; a first integral hinging strip interconnecting adjacent lateral portions of said members; a third, open sided casing member including a lateral portion adjacent a free lateral portion of one of said first recited pair of casing members; a second integral hinging strip interconnecting the last recited adjacent lateral portions; a panel member having a lateral portion adjacent a lateral portion of said third casing member; and a third integral hinging strip interconnecting the last recited adjacent lateral portions of said panel member and said third casing member, said hinging strips, casing members, and panel member being so cooperatively disposed that said panel member is foldable about said third hinging strip to a position closing said third casing member, the latter member thereupon being foldable about said second hinging strip into the casing member adjacent thereto, the other casing member being thereupon foldable about said first hinging strip to a position closing the other casing member of the recited pair.